Mobile Emergency Alert

Reaching Millions in Seconds

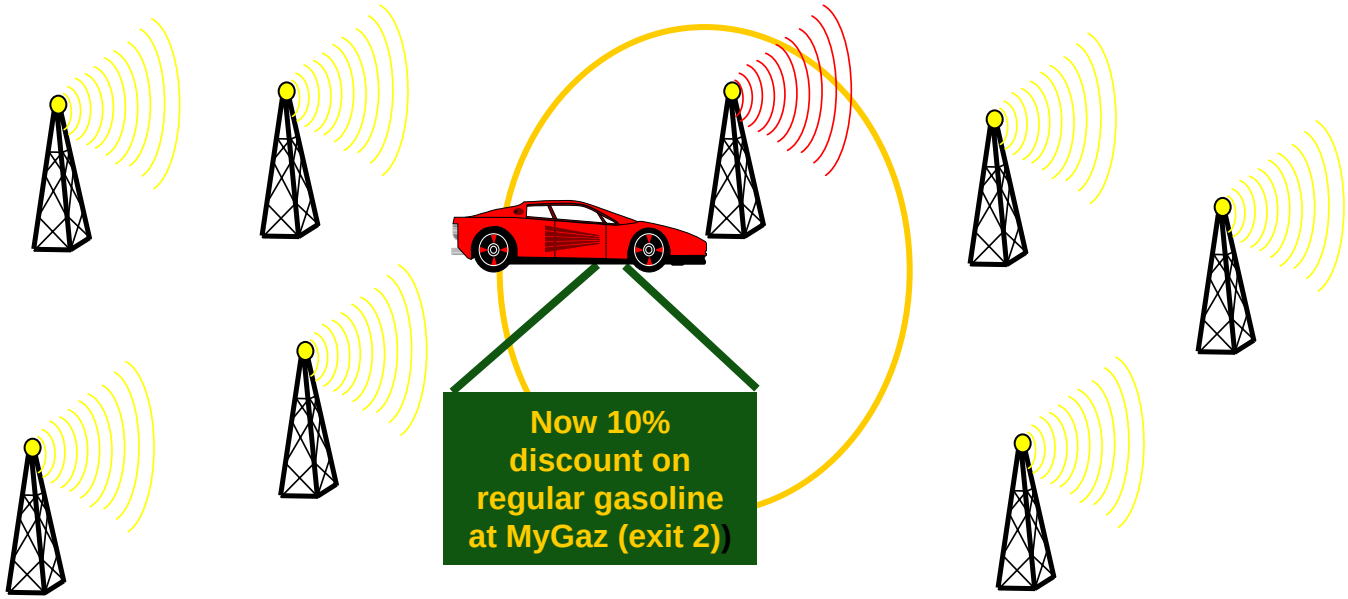
Hans Fernhout

Agenda

- Introduction LogicaCMG
- What is Cell Broadcast
- Why Cell Broadcast for Emergency Alerts
- Cell Broadcast: How does it work?
- European initiatives
- The Dutch project
- Discussion

What is Cell Broadcast?

- The mobile network broadcasts messages to all handsets located inside an area
- the handset presents only the message for the channels, which have been activated by the user



Why Cell Broadcast for Emergency Alerts

Cell Broadcast

- is location specific
- requires just a single message to reach millions
- is free of charge to mobile network subscriber
- is noticeable for the hearing impaired
- can reach people who cannot be reached through radio, tv and sirens
- does not suffer from network congestion

An example..

Cell Broadcast – how does it work

Information Provider action:

- defines geographical area using a GIS
- defines a broadcast message

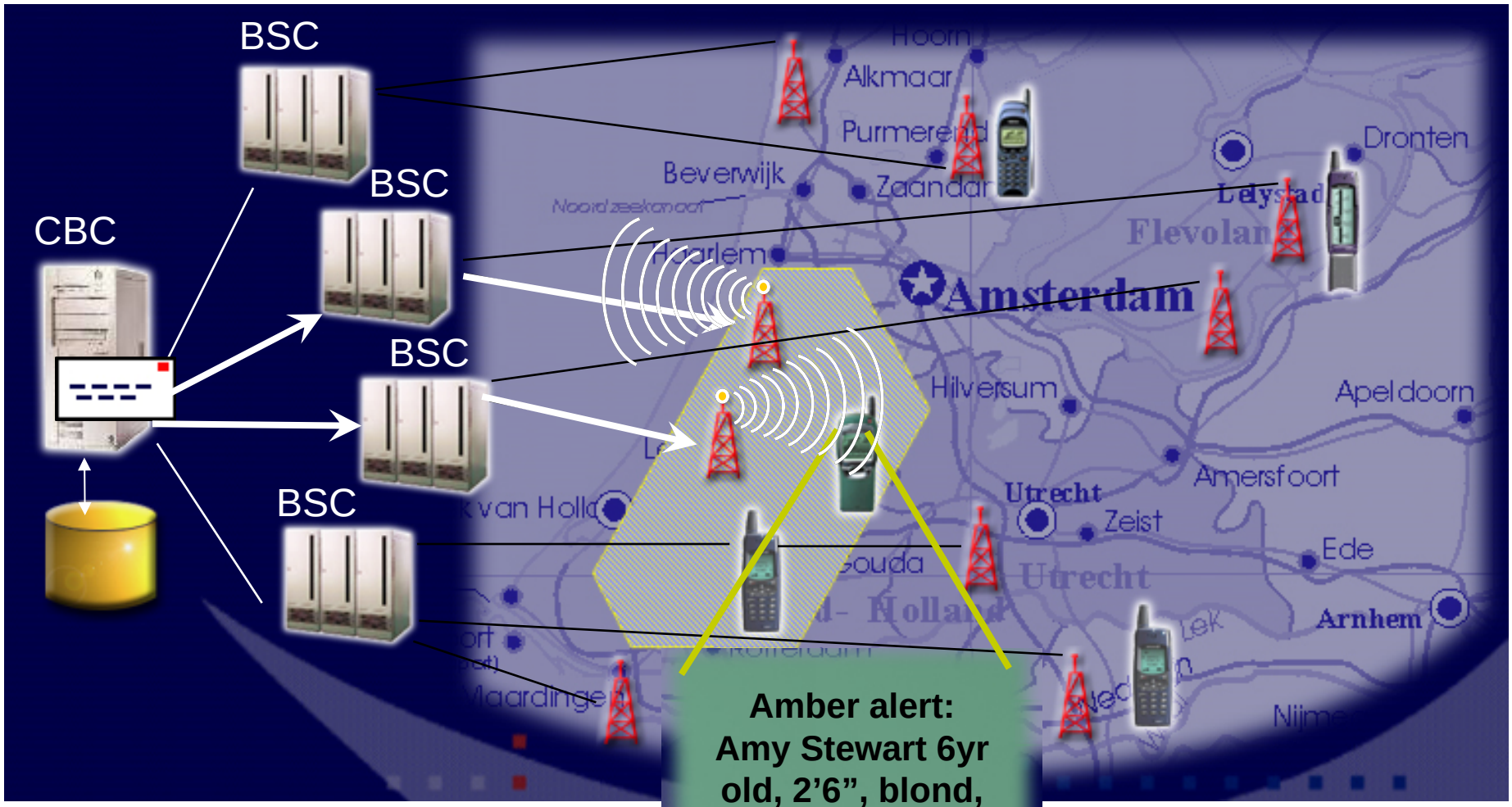
Cell Broadcast Center:

- translates geographical area into lists of cells
- sends the message to cells in destination area

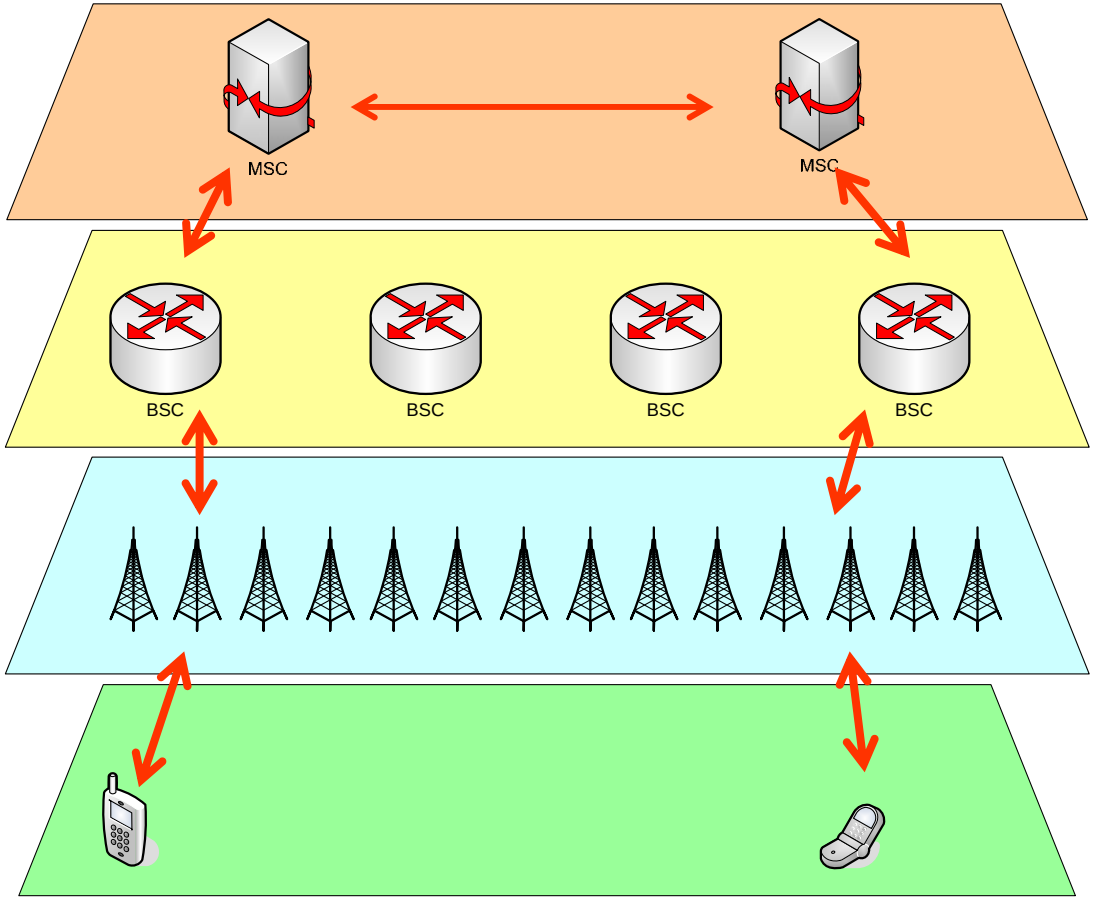
Mobile handset:

- receives the message and displays the content

Cell Broadcast - how does it work



Mobile Networks – technical view peer to peer



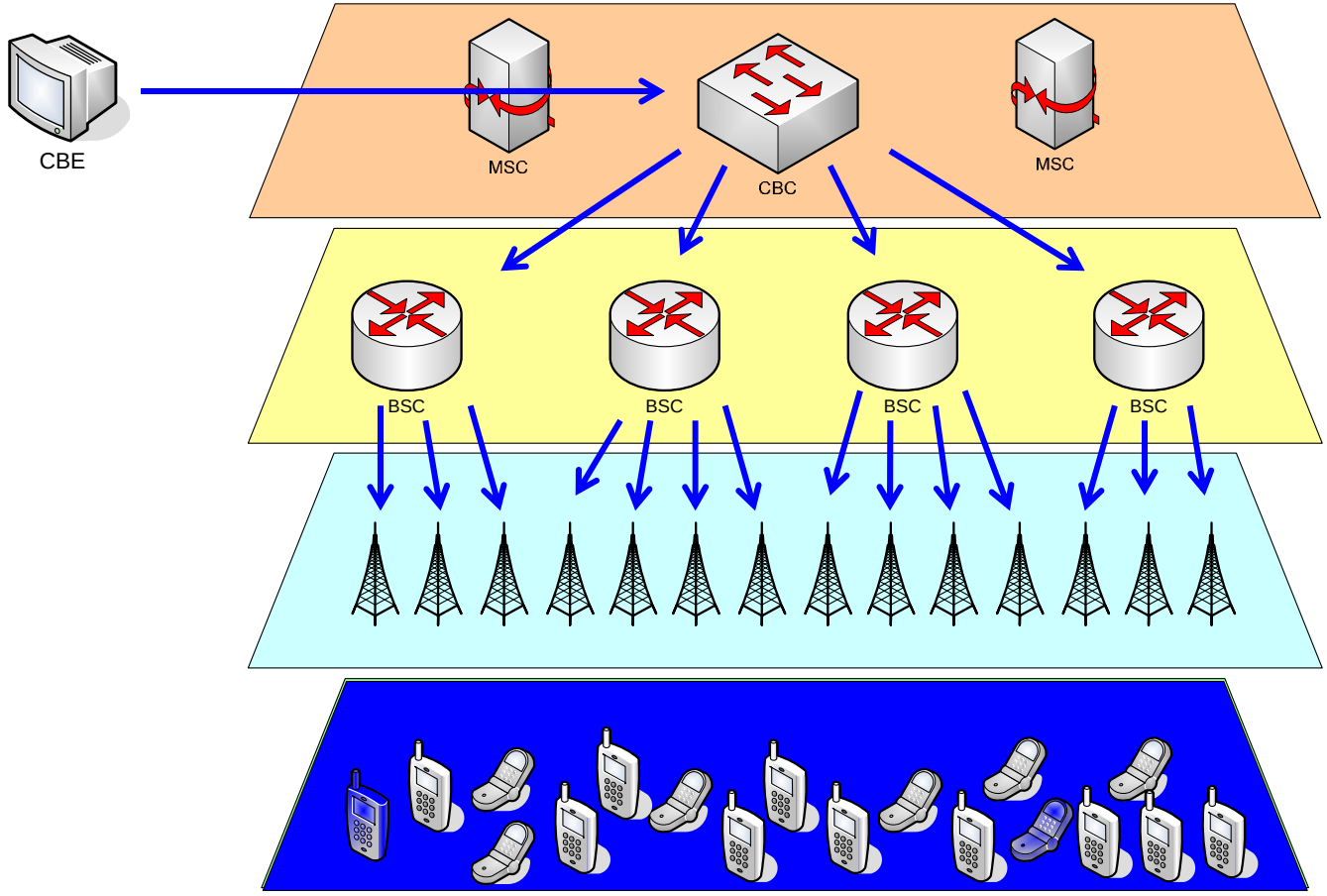
Network Switching

Base Station Controllers

Network Cells

Handsets

Mobile Networks – technical view broadcast



Network Switching

Base Station Controllers

Network Cells

Handsets

European developments

Viviane Reding

European Commissioner for Information, Society and Media

Speaking at the 3GSM World Congress in Cannes, 14 February 2005:

…

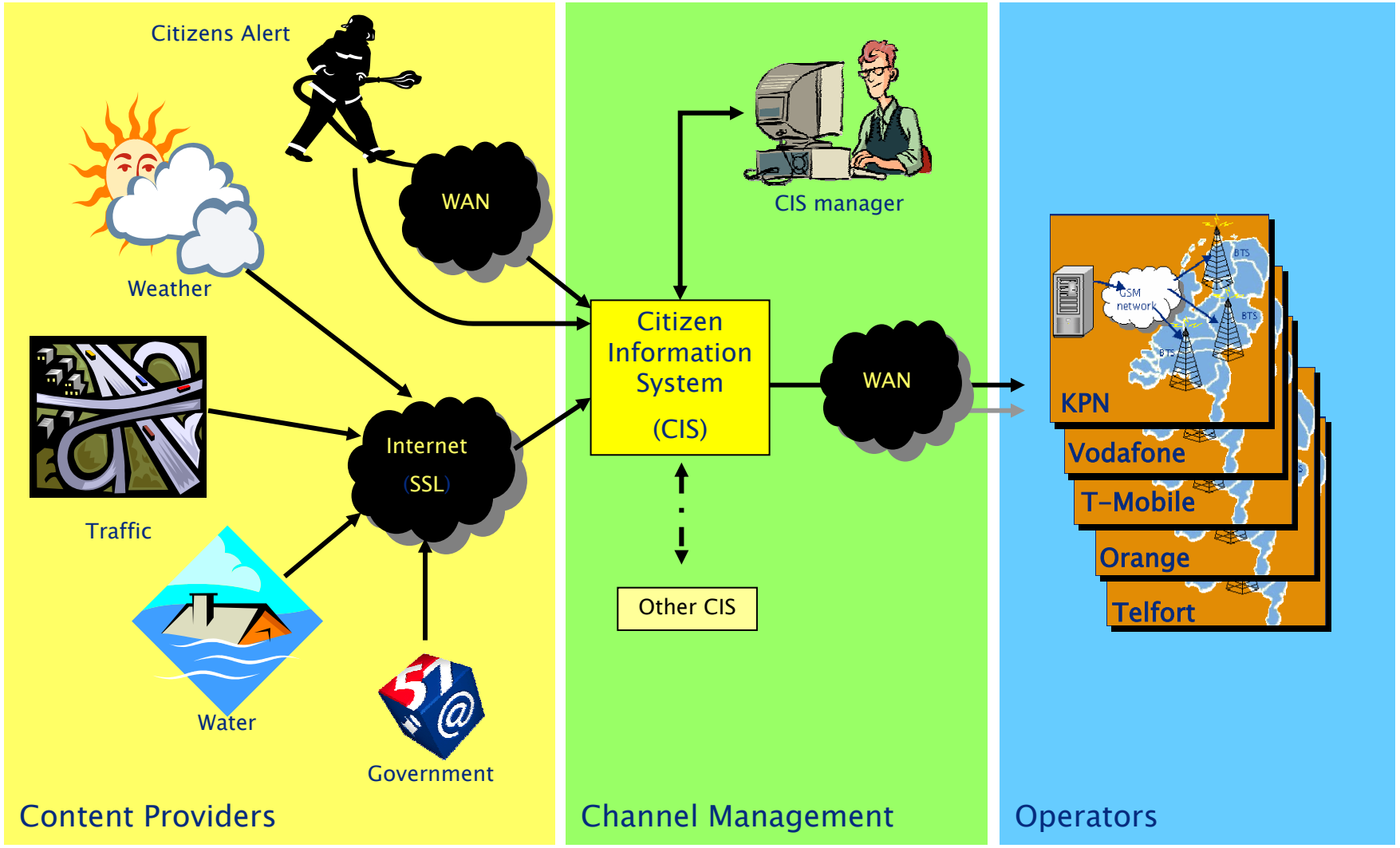
New applications of mobiles are constantly developing, as we see, for example, in response to the recent and terrible tsunami in Asia. Indeed, as GSM networks are well deployed across the globe, we are currently investigating whether and how these networks could be used for early warning of the public of an imminent threat or disaster, and what further actions would need to be taken, for instance to ensure a harmonised implementation of cell broadcast across the world's GSM networks and phones

...

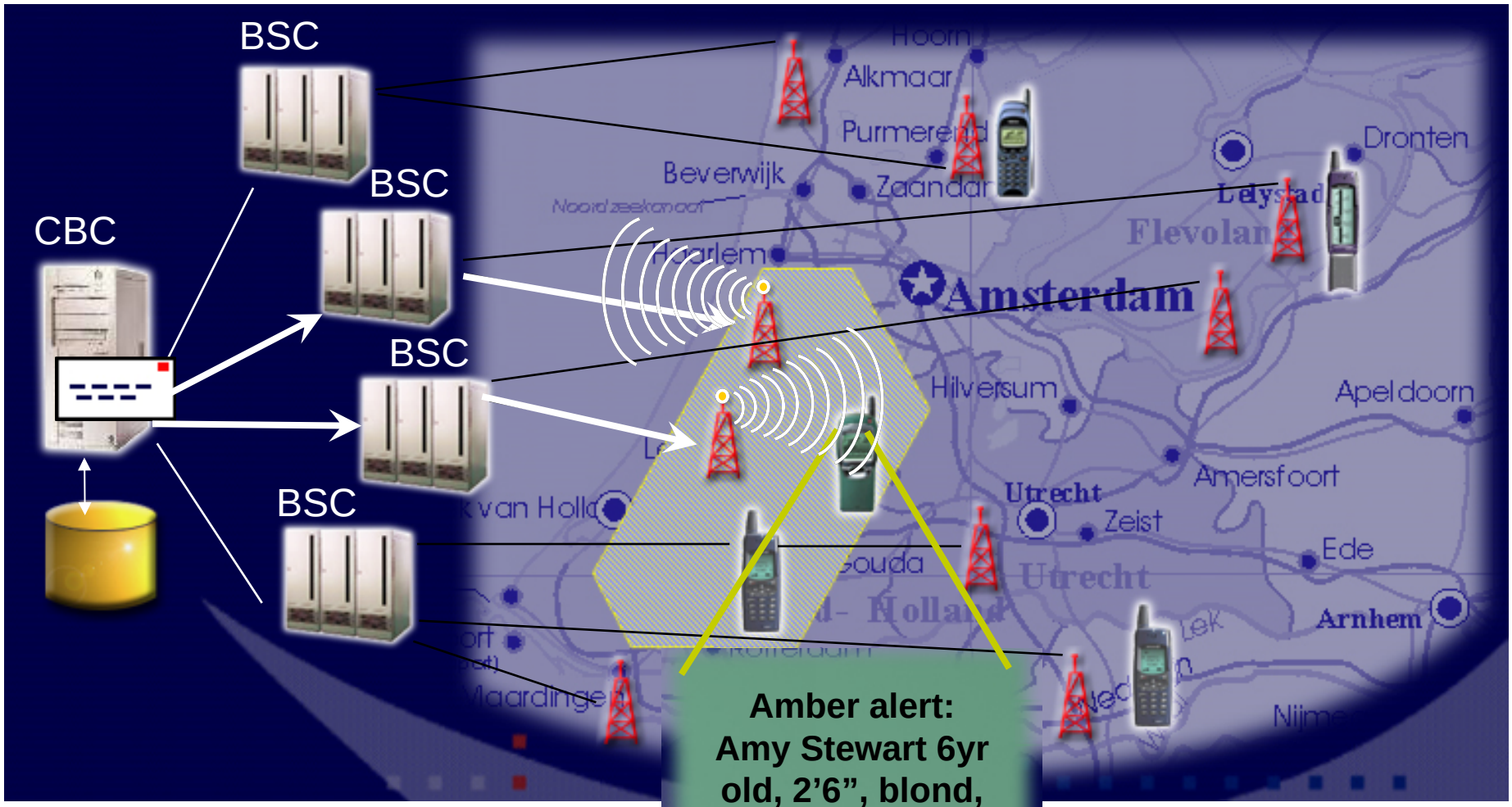
The Dutch project

- Dutch government pays for 2 year trial.
- Dutch government gets 40% of the capacity for
  - Alerting citizens of emergency situations
  - Crowd control and missing child alerts
  - General announcements
  - Target group services
  - Alerting the hearing impaired
- 60% of capacity is sold to other parties for:
  - Mobile marketing
  - Closed user groups
- Commercial revenue used for continuation after trial end

Dutch government approach



Discussion


BSC
BSC
BSC
BSC
CBC
Hoorn
Alkmaar
Purmerend
Beverwijk
Zaandam
Dronten
Lelystad
Flevoland
Haarlem
Amsterdam
Hilversum
Apeldoorn
Amersfoort
Utrecht
Zeist
Ede
Arnhem
Amber alert:
Amy Stewart 6yr old, 2'6", blond, missing since 11AM, March 8.

Discussion